



# SLOVENSKI STANDARD

oSIST prEN 15752-1:2008

01-maj-2008

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## Steklo v gradbeništvu - Samolepljiva polimerna folija - 1. del: Definicije in opisi

Glass in building - Adhesive backed polymeric film - Part 1: Definitions and descriptions

Glas im Bauwesen - Selbstklebende Polymerfolie - Teil 1: Begriffe und Beschreibungen

Verre dans la construction - Film polymère adhésif - Partie 1: Définitions et descriptions

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English Version

## Glass in building - Adhesive backed polymeric film - Part 1: Definitions and descriptions

Verre dans la construction - Film polymère adhésif - Partie  
1: Définitions et descriptions

Glas im Bauwesen - Selbstklebende Polymerfolie - Teil 1:  
Begriffe und Beschreibungen

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## Foreword

This document (prEN 15752-1:2008) has been prepared by Technical Committee CEN/TC 129 “Glass in Building”, the secretariat of which is held by NBN.

This document is currently submitted to the CEN Enquiry.

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## Introduction

Adhesive backed polymeric film is designed to be applied to glass to modify the properties and performance of the glass.

There are a number of different types of films that are manufactured to modify specific properties of glass: solar energy transmittance, visible light transmittance, emissivity, Ultra Violet transmittance, privacy, appearance, impact behaviour, electromagnetic frequency (emf) attenuation, and surface protection.

### 1 Scope

This European Standard defines adhesive backed polymeric film and the performance characteristics of adhesive backed polymeric film for use, on glass, in buildings.

This standard does not apply to adhesive backed polymeric films manufactured from polyvinylchloride (PVC).

Other requirements, not specified in this standard, may apply to adhesive backed polymeric film that is incorporated into assemblies, e.g. laminated glass or insulating glass units. The additional requirements are specified in the appropriate product standard. Adhesive backed polymeric film, in this case, does not lose its mechanical or thermal characteristics.

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### 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to be revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

EN 356	Glass in building – Resistance to manual attack
EN 410	Glass in building. Determination of luminous and solar characteristics of glazing
EN 572-1	Glass in building - Basic soda lime silicate glass products - Part 1: Definitions and general physical and mechanical properties
EN 572-2	Glass in building - Basic soda lime silicate glass products - Part 2: Float glass
EN 572-4	Glass in building - Basic soda lime silicate glass products - Part 4: Drawn sheet glass
EN 572-5	Glass in building - Basic soda lime silicate glass products - Part 5: Patterned glass
EN 673	Glass in building. Determination of thermal transmittance ( $U$ value). Calculation method
EN 1036	Glass in building – Mirrors
EN 1063	Glass in building – Testing and classification of resistance against bullet attack
EN 12600	Glass in building – Pendulum test – Impact method test and classification for flat glass
EN 12898	Glass in building. Determination of the emissivity

EN 13541 Glass in building – Testing and classification of resistance against explosion pressure

EN 50147-1 Anechoic chamber – Shield attenuation – Measurement

prEN 15752 Part 1 Adhesive backed polymeric filmed glass – Definitions and descriptions

### 3 Definitions

For the purposes of this European Standard the following definitions apply:-

#### 3.1

##### **Adhesive backed polymeric film**

One or more layers of polymeric film with an adhesive on one external face. It may also incorporate one or more of the following: colouring, UV absorbers, UV inhibitors, metal layer(s), metal alloy layer(s), metal oxide layer(s), scratch or abrasion resistant surface, release liner.

NOTE The individual layers of polymeric film substrate are laminated together to form the final film.

#### 3.2

##### **Solar control film**

Adhesive backed polymeric film designed to modify one or more of the following characteristics of glass: solar energy transmittance, visible light transmittance, glare reduction, Ultra-Violet transmittance, and infrared transmittance.

#### 3.3

##### **Safety film**

Adhesive backed polymeric film designed so that when applied to a glass pane the final product can be classified in accordance with EN 12600.

#### 3.4

##### **Security film**

Adhesive backed polymeric film designed so that when applied to an appropriate glass pane the final product can be classified in accordance with one or more of the following: EN 356, EN 1063, and EN 13541.

#### 3.5

##### **Decorative film**

Adhesive backed polymeric film designed to alter the appearance of a glass pane.

#### 3.6

##### **Anti-graffiti film**

A sacrificial adhesive backed polymeric film designed to help to protect glass surfaces against scratching, etching, spray painting, writing or similar defacing actions.

#### 3.7

##### **Ultra Violet reducing films**

Adhesive backed polymeric film designed to reduce the level of Ultra Violet transmittance through a pane of glass to not greater than 0,1%.

#### 3.8

##### **Low emissivity film**

Adhesive backed polymeric film designed to reduce the emissivity of a glass surface.

NOTE These films will have emissivity of  $\epsilon \leq 0,5$  when determined in accordance with EN 12898.

#### 3.9

##### **Privacy film**

Adhesive backed polymeric film designed to help to reduce vision through a pane of glass.

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**3.10****Radio Frequency Interrupter (RFI) / Electro-Magnetic Frequency (EMF) shielding film**

Adhesive backed polymeric film designed to attenuate frequencies from 30 MHz to 15 GHz with attenuation of  $\geq 20$ dB when tested in accordance with EN 50147-1.

**3.11****Release liner**

A disposable layer designed to protect the adhesive coating prior to installation.

**3.12****Splice**

A join in an adhesive backed polymeric film roll, i.e. across the width of the roll.

**3.13****Scratch or abrasion resistant surface**

A protective coating applied to one external surface of the adhesive backed polymeric film designed to resist scratching and/or abrasion.

**3.14****Glare Reduction**

Reduction of excess illumination.

**3.15****Clear adhesive backed polymeric film**

Adhesive backed polymeric film unmodified by the presence of coating(s), surface roughness, fillers, dyes and pigments with a minimum light transmittance.

NOTE The determination of whether an adhesive backed polymeric film can be regarded as clear is given in clause 5.2.

**3.16****Tinted adhesive backed polymeric film**

Adhesive backed polymeric film modified by the presence of fillers, dyes and/or pigments within the structure of the adhesive backed polymeric film.

**3.17****Metallised adhesive backed polymeric film**

Adhesive backed polymeric film modified by the presence of coating(s) of one or more metals, alloys or metal oxides that have been added to the surface of one or more of the constituent polymeric film layers.

NOTE These coatings may be deposited onto polymeric film surfaces by vacuum metallization, cathodic magnetron sputtering, electron beam and similar techniques.

**3.18****Tinted/metallised adhesive backed polymeric film**

Adhesive backed polymeric film modified by the presence of fillers, dye(s) and/or pigments in at least one polymeric film layer and having one or more coating(s) of metals, alloys or metal oxides added to the surface of at least one polymeric film layer.

NOTE This is composite film containing components of 3.16 and 3.17.

**3.19****Translucent adhesive backed polymeric film**

Adhesive backed polymeric film modified by fillers and/or surface roughness, thereby preventing direct vision through the film. The translucence may be in patterns such as stripes, squares or dots.

## 4 Adhesive backed polymeric films

### 4.1 General

Adhesive backed polymeric film products are made from one or more polymeric film layers.

The adhesive on the external surface of adhesive backed polymeric film products is either a dry water activated adhesive or a cross-linked acrylic pressure sensitive adhesive. There are instances where a water-based installation solution is required to facilitate the adhesion to the glass pane. The adhesive system can be specifically designed for a performance characteristic.

A release liner or a water soluble non-sticky (detackifying) coating or both may be used to protect the adhesive layer. These are removed prior to film installation.

A typical construction of an adhesive backed polymeric film is shown in Figure 1.

NOTE 1 The main polymeric material is bi-axially orientated polyethylene terephthalate film.

NOTE 2 Adhesive backed polymeric film manufacturers provide correct installation recommendations.

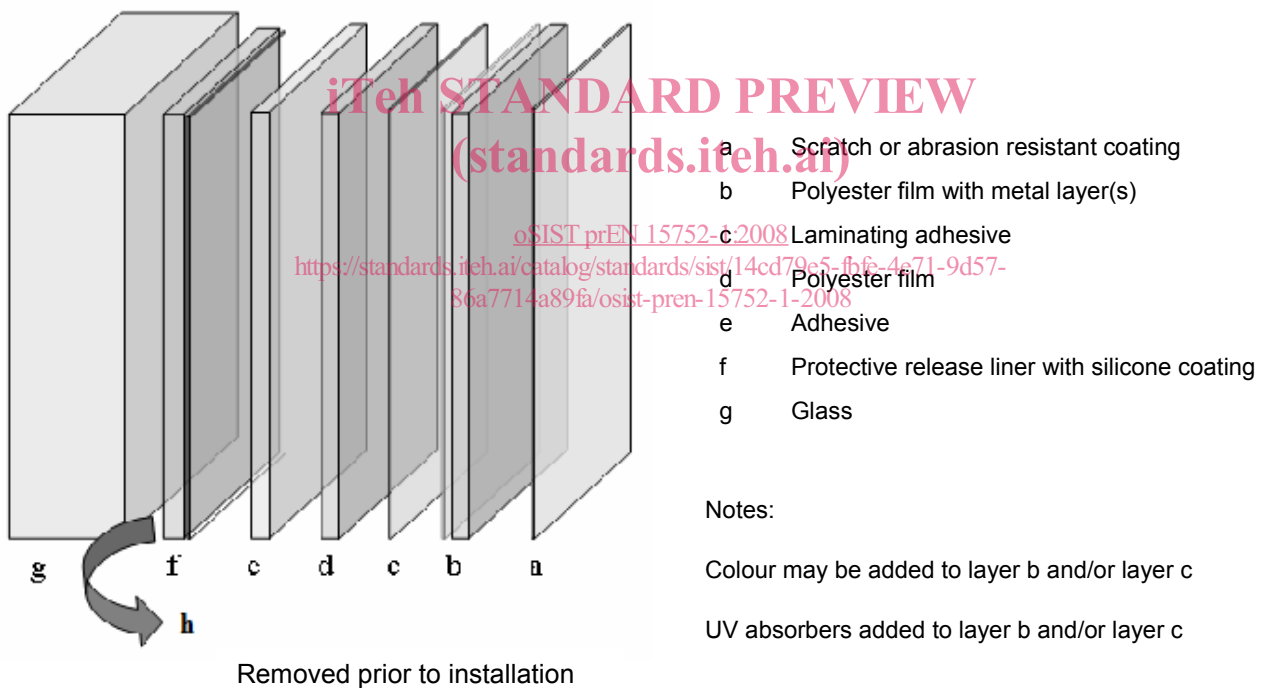


Figure 1 - Example of a construction of an adhesive backed polymeric film

### 4.2 External films

Adhesive backed polymeric films that are designed for installation on glass surfaces that are oriented to the exterior.

### 4.3 Internal films

Adhesive backed polymeric films that are designed to be installed on glass surfaces that are oriented to the interior.

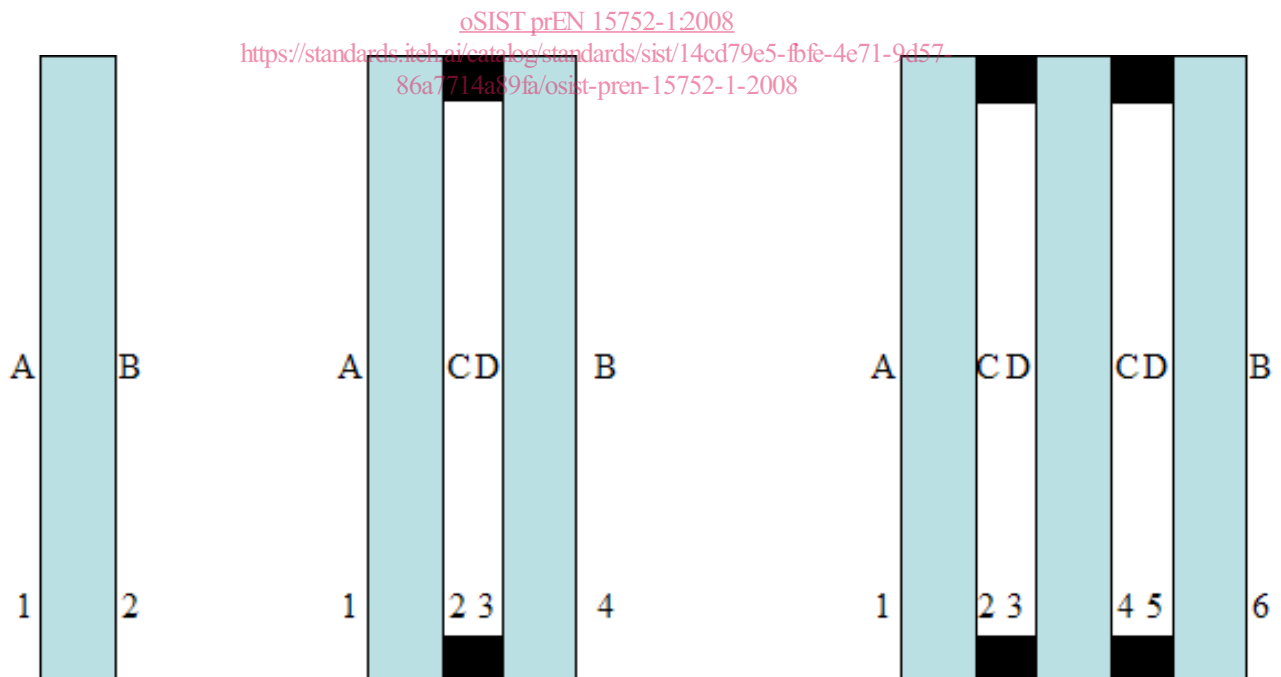
## 5 Properties of adhesive backed polymeric films

### 5.1 General

The performance characteristics and the properties of adhesive backed polymeric film are described in relation to their class, i.e. where they can be used, and to their type, i.e. the performance of the glass that will be modified. The class of film is given in Table 1 and Figure 2 and their property modifications are given in Table 2, where surface 1 is always towards the external environment.

**Table 1: Classes of adhesive backed polymeric film**

Class	Description
A	The adhesive backed polymeric film is designed to be applied to surface 1 of the glass unit
B	The adhesive backed polymeric film is designed to be applied to surface 2 of single glazing, or surface 4 of a double glazed unit, or surface 6 of a triple glazed unit
C	The adhesive backed polymeric film is designed to be applied to surface 3 of a double glazed unit or surface 5 of a triple glazed unit
D	The adhesive backed polymeric film is designed to be applied to surface 2 of a double glazed unit or surface 4 of a triple glazed unit



Key

A-D Installation position for classes A to D

1-6 Surface number of glazing (surface 1 is to the exterior)

**Figure 2 - Classes of adhesive backed polymeric filmed glass – installation position**